Abstract. Here we present very long baseline interferometry observations of the Galactic radio and X-ray source GRO J 1655-40. These observations show that the radio source which appeared approximately two weeks after the initial X-ray outburst consisted of two prominent components which separated with an apparent speed of 1.5 ± 0.4c. When the various possibilities for the geometry of the radio source are taken into account the apparent speed implies an intrinsic speed between 0.5c and 0.9c.

Our results and those of other investigators imply a strong link between the accretion of material onto a highly compact object and the ejection of relativistic components of radio emission.